

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method ~~(1)~~ for classifying at least one audio signal ~~(A)~~ into at least one audio class ~~(AC)~~, the method ~~(1)~~ comprising the steps of:

[[~~-~~]] analyzing ~~(10)~~ said audio signal to extract at least one predetermined audio feature;

[[~~-~~]] performing ~~(12)~~ a frequency analysis on a set of values of said extracted predetermined audio feature at different time instances resulting in a power spectrum of said extracted predetermined audio feature;

[[~~-~~]] deriving ~~(12)~~ at least one further audio feature representing a temporal behavior of said extracted predetermined audio feature ~~based on said frequency analysis by parameterizing said power spectrum~~; and

[[~~-~~]] classifying ~~(14)~~ said audio signal based on said further audio feature.

2. (Currently Amended) The method as claimed in claim 1, wherein said at least one predetermined audio feature comprises at least one of the following audio features:

[[~~-~~]] root-mean-square ~~(RMS)~~ level;

[[~~-~~]] spectral centroid ~~(S<sub>f</sub>)~~;

[[~~-~~]] bandwidth ~~(B<sub>f</sub>)~~;

- [[ - ]] zero-crossing rate ~~( $R_z$ )~~;
- [[ - ]] spectral roll-off frequency ~~( $f_x$ )~~;
- [[ - ]] band energy ratio ~~( $B_x$ )~~;
- [[ - ]] delta spectrum magnitude ~~( $f_d$ )~~;
- [[ - ]] pitch ~~( $T$ )~~; and
- [[ - ]] pitch strength ~~( $S$ )~~.

3. (Currently Amended) The method as claimed in claim 1, wherein said predetermined audio feature comprises at least one mel-frequency cepstral coefficient ~~(MFCC)~~.

4. (Currently Amended) The method as claimed in claim 1, wherein said predetermined audio feature comprises at least one of the psycho-acoustic ~~(PA)~~ audio features loudness and sharpness.

5. (Currently Amended) The method as claimed in claim 1, wherein said deriving step comprises the steps of:

- [[ - ]] calculating an average ~~(DC)~~ value of said set of values of said extracted predetermined audio feature at different time instances;
- [[ - ]] defining at least one frequency band;
- [[ - ]] calculating the amount of energy within said frequency band from said frequency analysis; and
- [[ - ]] defining said further audio feature as said amount of energy ~~in dependence on~~ divided by said average ~~(DC)~~ value.

6. (Currently Amended) The method as claimed in claim 5, wherein at least one of the following modulation frequency bands are used in said parameterizing ~~steps~~said power spectrum:

[[ - ]] 1-2 Hz;

[[ - ]] 3-15 Hz; and

[[ - ]] 20-150 Hz<sub>+</sub>.

7. (Currently Amended) The method as claimed in claim 1, wherein said at least one further audio feature is defined as at least one coefficient ~~(C(m))~~ obtained by performing a discrete cosine transformation ~~(DCT)~~ on the result of said frequency analysis.

8. (Currently Amended) A system ~~(20)~~ for classifying at least one audio signal into at least one audio class, the system comprising:

[[ - ]] means ~~(10)~~ for analyzing said audio signal to extract at least one predetermined audio feature;

[[ - ]] means ~~(12)~~ for performing a frequency analysis on a set of values of said extracted predetermined audio feature at different time instances resulting in a power spectrum of said extracted predetermined audio feature;

[[ - ]] means ~~(12)~~ for deriving at least one further audio feature representing a temporal behavior of said extracted predetermined

audio feature ~~based on said frequency analysis~~ by parameterizing said power spectrum; and

[[ - ]] means ~~(14)~~ for classifying said audio signal based on said further audio feature.

9. (Currently Amended) A music system ~~(2)~~ comprising:

[[ - ]] means ~~(24)~~ for playing audio data from a medium ~~(22)~~; and

[[ - ]] a system ~~(20)~~ as claimed in claim 8 for classifying said audio data.

10. (Currently Amended) A multi-media system ~~(3)~~ comprising:

[[ - ]] means ~~(34)~~ for playing audio data from a medium ~~(32)~~;

[[ - ]] a system ~~(20)~~ as claimed in claim 8 for classifying said audio data;

[[ - ]] means ~~(36)~~ for displaying video data from a further medium ~~(32)~~;

[[ - ]] means ~~(38)~~ for analyzing said video data; and

[[ - ]] means ~~(34)~~ for combining the results obtained from analyzing ~~(38)~~ said video data with the results obtained from classifying ~~(20)~~ said audio data.

11-12. (Cancelled).

13. (New) The method as claimed in claim 1, wherein performing a frequency analysis on a set of values of said extracted predetermined audio feature at different time instances

results in a log power spectrum of said extracted predetermined audio feature.